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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,942	08/21/2003	Yasuo Isumi	GY0310US	1297

7590 08/22/2005

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EXAMINER
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GUTIERREZ, ANTHONY

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/646,942	ISUMI ET AL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Anthony Gutierrez	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/21/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Information Disclosure Statement***

1. The information disclosure statement filed 8/21/03 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because no English translations have been provided for the foreign documents. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Keenan et al. (US 6,584,413 B1).

Art Unit: 2857

As to claims 1, and 9-13, Keenan et al. discloses a pass/fail judgment device comprising: a discriminant function computing unit, (in the form of a histogram) for computing discriminant functions which give variables used to separate the frequency distributions of pass category and fail category from a plurality of pieces of parameter information which make pass/fail judgment factors and pass/fail judgment result information thereof (col. 1, line 54-col. 2, line 38, where the pass and fail categories are related to the purity of a substance); a statistical parameter computing unit for computing the center of distribution and distribution parameters indicating the breadth of the distribution for said variables with respect to either or both of said pass category and fail category (col. 9, lines 15 and 16, and col. 10, lines 1-16); a threshold determining unit for taking as a threshold for pass/fail judgment the value of said variable which gives a specific distribution probability in either or both of said categories based on said center of distribution and distribution parameters (col. 15, lines 33-45); a parameter information acquiring unit for acquiring a plurality of pieces of parameter information on pass/fail judgment objects (col. 5, lines 55-65); and a pass/fail judging unit for comparing the value of said variable obtained by substituting the parameter information into said discriminant function with said threshold and thereby makes pass/fail judgment (col. 26, line 62-col. 27, line 34). The method is implemented using spectral analysis in any available electromagnetic range (col. 3, lines 25-29).

As to claim 2, Keenan et al. discloses that the statistical parameter computing unit computes the mean and standard deviation of fail category, and said threshold determining unit takes as said threshold said variable value equivalent to a value which

is away from said mean of fail category by a constant multiple of the standard deviation thereof (col. 23, line 59- col. 24, line 9).

As to claims 4-6, Keenen et al. discloses converting specified inspection data obtained as the result of inspecting a plurality of pass/fail judgment objects with a specified inspecting instrument in advance into parameters which represent different pass/fail judgment factors by a plurality of different conversion expressions, and is stored in a specified storage medium (including a hard drive), and a plurality of pieces of parameter information on pass/fail judgment objects acquired by said parameter information acquiring unit and the results of pass/fail judgment by said pass/fail judging unit are additionally stored in the specified storage medium (col. 6, lines 11-40).

As to claims 7 and 8, Keenen et al. discloses that computing discriminant functions having as a variable any of a plurality of said parameters, the discriminant function computing unit computes correlation coefficients between the parameters, counts the number of parameters which give a correlation coefficient not less than a predetermined value in said pass category and fail category, discards parameters having a high count, and repeats this processing to eliminate multicollinearity (col. 12, lines 24-38 and col. 20, line 53- col. 21, line 3).

As to claims 3, and 14-17, Keenen et al. discloses that inputted rate of flowout is obtained using a threshold range corresponding to said rate of flowout, that non-defective units are judged as defective units and that the suitability of the threshold depends on whether the threshold falls in the range from the mean to nine times the standard deviation which is considered to be the range corresponding to said rate of overcontrol (col. 15, lines 32-49).

**Conclusion**

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

United States Patent Application Publications

US 2004/0072143 A1 to Timmis et al., teaches method for classification of somatic embryos that uses multivariate spectral techniques.

US 2003/0187584 A1 to Harris, teaches methods for estimating classifier performance.

US 2002/0131644 A1 to Takebe teaches pattern recognition using probability density functions.

United States Patents

US 6,868,342 to Mutter teaches multivariate classification using rank orders.

US 6,842,702 B2 to Haaland et al., teaches augmented classical least squares multivariate spectral analysis.

US 6,606,579 B to Gu, teaches a method for combining spectral and non-spectral data for pattern recognition.

5,864,834 to Arai, teaches a method for estimating spectral reflectance distribution.

Art Unit: 2857

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Gutierrez whose telephone number is (571) 272-2215. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AG  
Anthony Gutierrez

6/27/05

